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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			WALSH, RYAN D	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/751,414	Applicant(s) SHIRAI ET AL.	
	Examiner Ryan D. Walsh	Art Unit 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s) .

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/6/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because of the terminology "FB-MFD". The terminology should be spelled out in its entirety. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: Page 6, Ln. 20, the word recording is misspelled.

(Page 8, Ln.23) hinges 107 is not in figure 10, (Page 8, Ln.25) Fig. 12 should be labeled Fig. 11, (Page 9, Ln.1) Fig. 12 should be labeled Fig. 11, (Page 9, Ln.10) ADF Mechanism 102 is not in figure 11, (Page 9, Ln.15-16) feed tray 104 is not in figure 11, (Page 9, Ln.20) document discharge tray 103 is not in figure 10, and (Page 31, Ln. 16-17) step 270 is not in figure 4.

Appropriate correction is required.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: (Page 12) mentions keys with reference numbers (21,23,25,27,29,31 and 33) but fail to mention them in a particular drawing.

The drawings are objected to because (Fig. 1, Ref. # 9) should be recording section, and is spelled wrong (see Pg. 11, Ln.5). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should

include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 21 is objected to because of the following informalities: (Pg. 41, Ln. 5) There should not be a period after the words "predetermined value." Appropriate correction is required.

Claim 21 is objected to because of the following informalities: (Pg. 41, Ln. 5) the word ratio is misspelled. Appropriate correction is required.

Claim 22 is objected to because of the following informalities: (Pg. 41, Ln. 22) the word recording is misspelled. Appropriate correction is required.

Claim 25 is objected to because of the following informalities: (Pg. 42, Ln. 17) the word recording is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 12-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoshi (JP 2000-175030).

Regarding claim 1, Satoshi teaches, "A copying machine comprising: a reading unit which reads a document to generate image data (Claim 1, Ln's. 1-2); a reducing unit which reduces the image data at a predetermined reduction ratio to generate reduced image data (Claim 1, Ln's. 9-12); and a recording unit which forms an image in a predetermined recording area on a recording medium on the basis of one of the image data generated by the reading unit and the reduced image data generated by the reducing unit (Claim 5, Ln's. 2-4), wherein: at least when the recording unit forms the image on the basis of the reduced image data, the reading unit reads an extended reading area of the document larger than the recording area (Claims 12 and 13)."

Regarding claim 2, Satoshi teaches, "The copying machine according to claim 1, wherein when the reducing unit is not used, the reading unit reads an area of the document equal to the recording area (Claim 6, Ln's. 3-5)."

Regarding claim 3, Satoshi teaches, "The copying machine according to claim 1, wherein when the recording unit forms the image on the basis of the image data

generated by the reading unit, the reading unit reads an area of the document equal to the recording area (Claim 6, Ln's. 3-5)."

Regarding claim 4, Satoshi teaches, "The copying machine according to claim 1, wherein when the recording unit forms the image on the basis of the image data generated by the reading unit, the reading unit reads the extended reading area of the document (Claims 12 and 13)."

Regarding claim 5, Satoshi teaches, "The copying machine according to claim 1, wherein the extended reading area of the document is an area larger in a main scanning direction than the recording area of the recording medium (Claim 8, Ln's. 2-3)."

Regarding claim 6, Satoshi teaches, "The copying machine according to claim 1, wherein a ratio of a length of the recording medium in a sub-scanning direction to a length of the document in the sub-scanning direction is set as the reduction ratio (Detailed description [0020])."

Regarding claim 7, Satoshi teaches, "The copying machine according to claim 6, wherein the reading unit detects the length of the document in the sub-scanning direction (Claim 2)."

Regarding claim 8, Satoshi teaches, "The copying machine according to claim 1, wherein a value in proportion to a ratio of a length of the recording medium in a sub-scanning direction to a length of the image data in the sub-scanning direction is set as the reduction ratio (Detailed description [0020])."

Regarding claim 9, Satoshi teaches, "The copying machine according to claim 1, wherein a ratio of a length of the recording medium in a main scanning direction to a length of the document in the main scanning direction is set as the reduction ratio (Detailed description [0020])."

Regarding claim 10, Satoshi teaches, "The copying machine according to claim 1, wherein when the reading unit detects a length of the document in a sub-scanning direction (Claim 8, Ln's 1-3) greater than or equal to a predetermined threshold value, the reduction ratio is set to a predetermined value (Claim 8, Ln's 3-5)."

Regarding claim 12, Satoshi teaches, "A copying method comprising: reading a document to generate image data (Claim 1, Ln's 1-2); reducing the image data at a predetermined reduction ratio to generate reduced image data (Claim 1, Ln's 9-12); and forming an image in a predetermined recording area on a recording medium (Claim 5, Ln's 2-4) on the basis of one of the image data generated in the reading and the reduced image data generated in the reducing (Claim 1, Ln's 10-11), wherein: at least when in the forming, the image is formed on the basis of the reduced image data, an extended reading area of the document, which is larger than the recording area, is read in the reading (Claims 12 and 13)."

Regarding claim 13, Satoshi teaches, "The copying method according to claim 12, wherein when the reducing is not performed, an area of the document equal to the recording area is read in the reading (Claim 6, Ln's 3-5)."

Regarding claim 14, Satoshi teaches, "The copying method according to claim 12, wherein the image is formed on the basis of the image data in the recording, an

area of the document equal to the recording area is read in the reading (Claim 6, Ln's 3-5)."

Regarding claim 15, Satoshi teaches, "The copying method according to claim 12, wherein when the image is formed on the basis of the image data in the recording, the extended reading area of the document is read in the reading (Claims 12 and 13)."

Regarding claim 16, Satoshi teaches, "The copying method according to claim 12, wherein the extended reading area of the document is an area larger in a main scanning direction than the recording area of the recording medium (Claim 8, Ln's 2-3)."

Regarding claim 17, Satoshi teaches, "The copying method according to claim 12, further comprising: setting a ratio of a length of the recording medium in a sub-scanning direction to a length of the document in the sub-scanning direction as the reduction ratio (Detailed description [0020])."

Regarding claim 18, Satoshi teaches, "The copying method according to claim 17, further comprising: detecting the length of the document in the sub-scanning direction (Claim 2)."

Regarding claim 19, Satoshi teaches, "The copying method according to claim 12, further comprising: setting a value in proportion to a ratio of a length of the recording medium in a sub-scanning direction to a length of the image data in the sub-scanning direction as the reduction ratio (Detailed description [0020])."

Regarding claim 20, Satoshi teaches, "The copying method according to claim 12, further comprising: a ratio of a length of the recording medium in a main scanning

direction to a length of the document in the main scanning direction as the reduction ratio (Detailed description [0020])."

Regarding claim 21, Satoshi teaches, "The copying method according to claim 12, further comprising: detecting a length of the document in a sub-scanning direction (Claim 8, Ln's 1-3); and setting the reduction ratio to a predetermined value when the length of the document in the sub-scanning direction is greater than or equal to a predetermined threshold value (Claim 8, Ln's 3-5)."

Regarding claim 22, Satoshi teaches, "A copying machine comprising: a reduction ratio setting section which sets a reduction ratio (Claim 1, Ln's 9-10); a control section which compares the reduction ratio with a threshold value (Claim 1, Ln's 10-12); an effective area setting section which detects a length of a document in a main scanning direction to set an effective area (Claim 2); a reading section which reads the document to generate image data (Claim 1, Ln's 1-2); data processing section which reduces the image data on the basis of a comparison result provided by the control section, the image data, and the effective area (Claims 9 and 10); and a recording section which forms an image on a recording area of a recording medium on the basis of the image data reduced by the data processing section (Claim 5, Ln's. 2-4)."

Regarding claim 23, Satoshi teaches, "The copying machine according to claim 22, wherein when the control section determines that the reduction ratio is smaller than the threshold value (Claim 8, Ln's 3-4), the effective area setting section sets the effective area to be larger than the recording area (Claims 12 and 13)."

Regarding claim 24, Satoshi teaches, "The copying machine according to claim 22, wherein when the control section determines that the reduction ratio is greater than or equal to the threshold value (Claim 8, Ln's 3-4), the effective area setting section sets the effective area to correspond to the recording area (Claims 12 and 13)."

Regarding claim 25, Satoshi teaches, "The copying machine according to claim 22, wherein when the control section determines that the reduction ratio is greater than or equal to the threshold value (Claim 8, Ln's 3-4), the data processing section discards a portion of the reduced image data, which is out of the recording area, and the recoding section forms the image on the basis of the remaining reduced image data (Claims 5 and 6)."

Regarding claim 26, Satoshi teaches, "The copying machine according to claim 22, wherein the effective area setting section sets the effective area so that a length of the effective area in the main scanning direction is larger than the detected length of the document in the main scanning direction (Claims 12 and 13)."

Regarding claim 27, Satoshi teaches, "The copying machine according to claim 22, wherein the effective area setting section sets the effective area so that a length of the effective area in the main scanning direction is larger than a length of the recording area of the recording medium in the main scanning direction (Claim 8, Ln's 2-3)."

Regarding claim 28, Satoshi teaches, "The copying machine according to claim 22, wherein the reduction ratio setting section sets a ratio of a length of the recording medium in a sub-scanning direction to a length of the document in the sub-scanning direction as the reduction ratio (Detailed description [0020])."

Regarding claim 29, Satoshi teaches, "The copying machine according to claim 22, wherein the reduction ratio setting section sets a value in proportion to a ratio of a length of the recording medium in a sub-scanning direction to a length of the image data in the sub-scanning direction as the reduction ratio (Detailed description [0020])."

Regarding claim 30, Satoshi teaches, "The copying machine according to claim 22, wherein the reduction ratio setting section sets a ratio of a length of the recording medium in a main scanning direction to a length of the document in the main scanning direction as the reduction ratio (Detailed description [0020])."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoshi (JP 2000-175030) in view of Rao et al. (US Pat. # 5,613,017).

Regarding claim 11, Satoshi fails to teach, "a buffer which temporarily stores the image data generated by the reading unit before outputting the image data to the reducing unit or the recording unit; and a preparatory reducing unit which thins out the image data before storing the image data in the buffer."

However, a buffer which temporarily stores the image data generated by the reading unit before outputting the image data to the reducing unit or the recording unit; and a preparatory reducing unit which thins out the image data before storing the image

data in the buffer is routine in the art as shown by Rao et al. (see Col. 20, Ln's 58-65 and Col. 21, Ln's 13-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Satoshi's invention by having a buffer which temporarily stores the image data generated by the reading unit before outputting the image data to the reducing unit or the recording unit; and a preparatory reducing unit which thins out the image data before storing the image data in the buffer.

The ordinary artisan would have been motivated to modify Satoshi's invention in a manner described above for at least the purpose of processing an image at an optimum size, different than the size of the actual document being scanned.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan D. Walsh whose telephone number is 571-272-2726. The examiner can normally be reached on M-F 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan D. Walsh
Patent Examiner
Art Unit 2852



RENEE LUEBKE
PRIMARY EXAMINER